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## <u>REMARKS</u>

# Introduction - Claim Status

The Office Action indicates that claims 1-44 are pending, with claims 1-9, 29, and 38-44 being rejected, and claims 10-28 and 30-37 being objected to as dependent upon a rejected base claim. Applicant gratefully acknowledges the Examiner's indication that these objected to claims would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. In the present amendment, claims 1 and 42 are amended for additional clarity. No new matter has been added. Applicant respectfully requests reconsideration in view of the herewith presented amendments and remarks.

## Rule 75(c) Objection to Claims 40 and 41

The Office Action objects to claims 40 and 41 under 37 CFR § 1.75 (c) for allegedly being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant respectfully disagrees with this objection. More specifically, Applicant respectfully submits that these claims are of proper form insofar as they satisfy 35 USC § 112, ¶ 2, and thus these claims need not be amended with respect to the preamble or explicitly recited elements. See, In re Faust, 86 USPQ 114, 115 (1943) (The acid test to which a claim should be subjected to determine the acceptability of its form is one of particularity and distinctness with which it points out the field forbidden to

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the public."). Moreover, a test as to whether a claim is a proper dependent claim is that it shall include every limitation of the claim from which it depends (35 USC § 112, ¶4) or, in other words, that it shall not conceivably be infringed by anything which would not also infringe the basic claim. See MPEP §608.01(n).

Applicant respectfully submits that under these tests, clams 40 and 41 are of proper form, and thus the objection to these claims should be withdrawn.

## The 35 USC §102(b) Rejection

The Office Action rejects claims 1-9, 29 and 38-44 under 35 U.S.C. §102(b), as being anticipated by Capel (US Patent No. 5,029,062). More specifically, the Office Action states that components of Capel's circuit allegedly correspond to the limitations of the rejected claims as follows:

Capel discloses an electrical regulation and energy transfer circuit in Figs. 2 and 3. A primary switch Q3 and Q4, detection circuit 27, rectifier Q5 and Q6, driver M5 and M6, bi-directional power stage 13, impedance matching circuit 15 and current control system 16.

With respect to independent claims 1 and 42, Applicant respectfully traverses this rejection at least insofar as the Office Action, as best understood, alleges that "detection circuit 27" of Capel provides a timing signal "representative of the primary switch timing" with the conduction control terminal being driven OFF based on the timing signal, as claimed by Applicant (claims 1 and 42). More specifically, Applicant submits that the so-called "detection circuit 27" of Capel is a clocked driver circuit that does not provide a timing signal as claimed at least inasmuch as Capel does not teach or suggest that the signal output by driver stage 27 is somehow coupled (directly or

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indirectly) to cause the rectifier turnoff to be timed based on a signal that represents the primary switch timing, even though the primary switch timing is necessarily related to the driver stage 27 timing and the driving of Q3 and Q4 causes the transformer voltage reversals that result in Q5 and Q6 switching on and off.

Notwithstanding the foregoing, Applicant has amended claims 1 and 42 to further clarify that the conduction control terminal of the rectifier is driven OFF based on the timing signal "at a time such that the magnitude of the current conducted by said rectifier device is not substantial relative to the magnitude of the output current and such that substantial cross-conduction does not occur." The specification clearly supports this amendment. See, e.g., page 18, line 18 et seq.; page 21, line 11 et seq.; page 25, line 22 et seq.; and page 30, line 8 et seq.

Capel, even viewed in the manner alleged in the Office Action, simply does not teach or suggest, *inter alia*, such control of the timing for turning off a synchronous rectifier "such that the magnitude of the current conducted by said rectifier device is not substantial relative to the magnitude of the output current and such that substantial cross-conduction does not occur," as claimed by Applicants (claims 1 and 42). More specifically, although Capel states that the synchronous rectification by switches Q5 and Q6 is "automatically synchronizable by means of secondary windings T5 and T6 associated with driver modules M5 and M6," Capel neither describes nor suggests controlled timing of the turnoff signal as required by Applicant's claimed invention (claims 1 and 42). Moreover, Applicant respectfully submits that such timing control as claimed by Applicant would not have been inherent in such a circuit at least inasmuch

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as Capel's circuit would not necessarily result in rectifier/switch Q5 and/or rectifier/switch Q6 being switched OFF "at a time such that the magnitude of the current conducted by said rectifier device is not substantial relative to the magnitude of the output current and such that substantial cross-conduction does not occur."

Accordingly, for at least the foregoing reasons, Applicant respectfully submits that claims 1 and 42, and claims dependent thereon, are patentably distinct over Capel, and thus the §102(b) rejections should be withdrawn and the claims allowed over the prior art of record.

Although the claims dependent on claims 1 and 42 are allowable for at least the reasons set forth above for the independent claims upon which they depend, Applicant further submits that the dependent claims recite limitations that provide additional and independent bases for patentable distinction over the cited prior art, and Applicant respectfully reserves the right to present these grounds for patentability at a later date should such be appropriate and/or necessary.

### Conclusion

In view of the above amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Reconsideration and withdrawal of the Examiner's rejections is respectfully requested and allowance of all pending claims is respectfully submitted.

If any outstanding issues remain, or if the Examiner has any suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number below.

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## **Authorization**

Applicants believe that the petitioned extension of time is sufficient to render this filing timely. However, should an additional extension of time be necessary, such is hereby petitioned, and the Commissioner is hereby authorized to charge any additional fees which may be required for this paper, or credit any overpayment, to Deposit Account No. 13-4500.

By:

Respectfully submitted,

**MORGAN & FINNEGAN** 

Date: December 14, 2004

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